DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

	A14CE Revision 36
	RAYTHEON
99	C99
99A	100
99A (FACH)	A100 (U-21F)
A99	A100A
A99A	A100C
B99	B100
	December 26, 2003

TYPE CERTIFICATE DATA SHEET NO. A14CE

This data sheet which is part of Type Certificate No. A14CE prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder — Raytheon Aircraft Company
9709 E. Central
Wichita, Kansas 67201

I - Model 99, Airliner, (Normal Category), Approved May 2, 1968
Model 99A, Airliner, (Normal Category), Approved February 10, 1969
Military 99A (FACH), (Normal Category), Approved June 10, 1970

Engines — 2 United Aircraft of Canada, Ltd. PT6A-20 (Turboprop) per Beech Specification BS 20331A(99).
OR 2 United Aircraft of Canada, Ltd. or Pratt and Whitney PT6A-27 (Turboprop) per Beech Specification BS 20570B (99A) (See Note 6).
OR 2 UACL or Pratt and Whitney PT6A-28 (Turboprop) per Beech Specification BS 21404 (99A) (See NOTE 8).

Fuel — JP-4, JP-5 (MIL-T-5624); JP-8 (MIL-T-83133); JET A, JET A-1, and JET B conforming to P&WC S.B. 1244 or ASTM SPEC. D1655. See NOTE 7 for emergency fuels

Oil (Engine and Gearbox) — UACL PT6 Service Bulletin No. 1 lists approved brand oils.

Engine limits*** — Static Sea Level Ratings PT6A-20

	Shaft Horsepower	Jet Thrust	Equivalent Shaft Horsepower	Prop Shaft Speed	Maximum Permissible Turbine Interstage Temp (Deg.C.)
Takeoff (5 min.)	550**	72	579	2200*	750
Maximum continuous	550**	72	579	2200*	750
Starting trans. (2 sec.)					1090
Max. reverse (1 min.)	300			2100	750

*See Note 4.
**Available to 70° F. (21.2° C.) static
***See Note 9.

Engine limits*** — Static Sea Level Ratings PT6A-27 or -28

	Shaft Horsepower	Jet Thrust	Equivalent Shaft Horsepower	Prop Shaft Speed	Maximum Permissible Turbine Interstage Temp(Deg.C.)
Takeoff (5 min.)	550**	76	580	2200*	725
Maximum continuous	550**	76	580	2200*	725
Starting trans. (2 sec.)					1090
Max. reverse (1 min.)	300			2100	725

*See Note 4.
**Available to 112.4° F. (44.6° C.) static
***See Note 9.

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I - Model 99, Model 99A, Military 99A (cont'd)

Oil temperatures:

Minus 40° F.	Minimum starting
Minus 40° F. to 210°F.	Low idle
50° F. to 210° F.	Maximum continuous

Propeller and Propeller Limits

2 Hartzell HC-B3TN-3 or HC-B3TN3B hubs with Hartzell T10173E-8 or T10173B-8 blades
Diameter: 93 3/8 in. (normal); minimum allowable for repair 90 3/8 in.
No further reduction permitted
Pitch settings at 30 in. sta.:
Reversing propeller

Flight idle stop	- See NOTE 5
Second flight idle stop	- See NOTE 5
Reverse - 11°	
Feather - 87°	

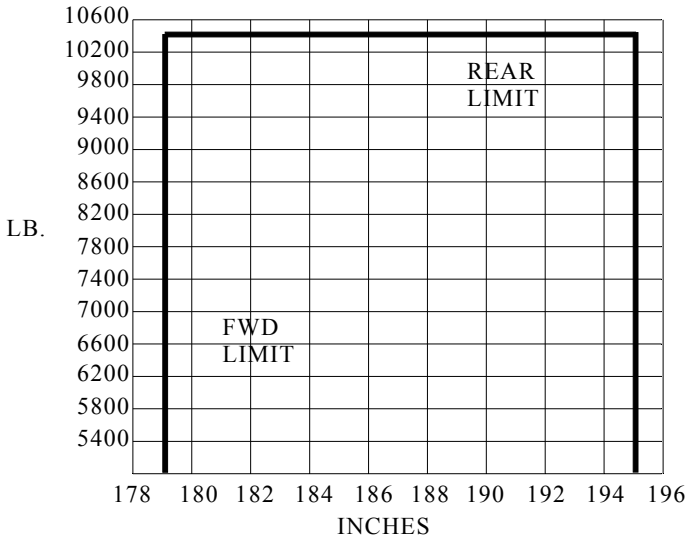
Airspeed Limits (CAS)

Max. operating speed	-	260 m.p.h. (226 knots) up to 15,500 ft. 15,500 ft. to 25,000 ft. decrease 4 knots per 1,000 ft.
Maneuvering speed	-	195 m.p.h. (169 knots)
*Flaps extended speed	-	152 m.p.h. (132 knots)
Landing gear extended	-	180 m.p.h. (156 knots)
Landing gear	-	150 m.p.h. (130 knots) (Retraction)
Operating	-	180 m.p.h. (156 knots) (Extension)

*See NOTE 9

C.G. Range (Landing Gear Extended)

(+179.0) to (+195.0) at 10,400 lb. or less
Moment change due to retracting landing gear -4871 in.-lb.



Empty Wt. C.G. Range

None

***Maximum Weight**

Takeoff 10,400 lb.
Landing 10,400 lb.
*See NOTE 9

No. of Seats

Maximum 17 (including 2 crew seats at +126)
See loading instructions in Pilot's Operating Handbook for an approved seating or cargo configuration. FAA approval for any other configuration must be obtained.

Maximum Baggage

600 lb. (+ 52)
100 lb. (+378)
800 lb. (+187) in baggage pod when installed

Fuel Capacity

115 gal. (+160) (total usable in 2 nacelle tanks, 57 gal. each)
258 gal. (+196) (total usable in 2 wing tanks 128 gal. each)
See NOTE 1(a) for data on system fuel

I - Model 99, Model 99A, Military 99A (cont'd)

Oil Capacity
28 qt. (total oil capacity)(includes 12 qt. usable in 2 integral engine tanks at +131)
See NOTE 1(b) for data on system oil

Maximum Operating Altitude
25,500 ft.
For FAR 91 operations:
without oxygen -12,000 ft.
with crew oxygen only -15,000 ft.
For FAR 135 operations:
as limited by FAR 135.83

Control Surface Movements

Wing flaps	Maximum	43°			
Aileron tab	Up	15°	Down	15°	
Aileron	Up	18°	Down	20°	
Elevator	Up	12°	Down	15°	
*Stabilizer	Up	3-1/2°	Down	3-1/2°	
Rudder tab	Right	30°	Left	30°	
Rudder	Right	26°	Left	20°	

*See NOTE 9

Serial Nos. Eligible
U-1 through U-145 and U-147
See NOTE 6

II - Model 100, King Air, (Normal Category), Approved July 24, 1969

Engines
2 United Aircraft of Canada, Ltd. or Pratt and Whitney PT6A-28 (Turboprop) per Beech Specification BS 21404

Fuel
JP-4, JP-5 (MIL-T-5624); JP-8 (MIL-T-83133); JET A, JET A-1, and JET B conforming to P&WC S.B. 1244 or ASTM SPEC. D1655.
See NOTE 7 for emergency fuels

Oil (Engine and Gearbox)
UACL PT6 Service Bulletin No. 1 lists approved brand oils.

Engine limits***

	Static Sea Level Ratings				
	Shaft Horsepower	Jet Thrust	Equivalent Shaft Horsepower	Prop Shaft Speed	Maximum Permissible Turbine Interstage Temp (Deg.C.)
Takeoff (5 min.)	680**	90	715	2200*	750
Maximum continuous	680**	90	715	2200*	750
Starting trans. (2 sec.)					1090
Max. reverse (1 min.)	300			2100	750

*See Note 4.
**Available to 70° F. (21.2° C.) static

At low altitude and low ambient temperature the engines may produce more power at takeoff than that for which the airplane has been certificated. Under those conditions the placarded torquemeter limitations shall not be exceeded.

Oil temperatures:		
	Minus 40° F.	Minimum starting
	Minus 40° F. to 210°F.	Low idle
	50° F. to 210° F.	Max. continuous

Propeller and Propeller Limits
2 Hartzell HC-B3TN-3 or HC-B3TN-3B or HC-B3TN-3M hubs with Hartzell T10173E-8 or T10173B-8 or T10173NB-8 blades.
Diameter: 93-3/8 in. (normal); minimum allowable for repair
90-3/8 in. No further reduction permitted
Pitch settings at 30 in. sta.:
Flight idle stop - See NOTE 5
Secondary flight idle stop - See NOTE 5
Reverse - 11°
Feather - 87°

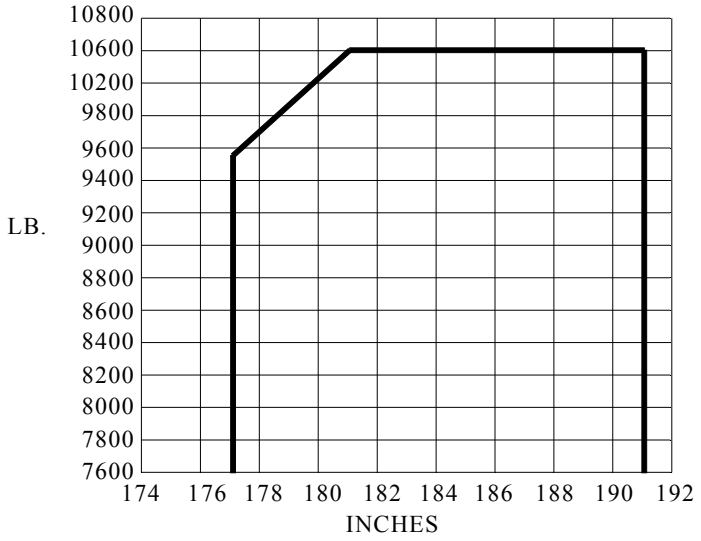
II - Model 100 (cont'd)

Airspeed Limits (CAS)

Max. operating speed	- 260 m.p.h. (226 knots) up to 15,500 ft. Decrease 4 knots per 1,000 ft. above 15,500 ft.
Maneuvering speed	- 195 m.p.h. (169 knots)
Max. flaps extension speed	
Approach position 13°	- 210 m.p.h. (182 knots)
Full down position 43°	- 161 m.p.h. (140 knots)
Landing gear extended	- 180 m.p.h. (156 knots)
Landing gear operating	- 180 m.p.h. (156 knots) (Extension) - 150 m.p.h. (130 knots) (Retraction)

C.G. Range (Landing Gear Extended)

(+181.0) to (+191.0) at 10,600 lb. or less
(+177.0) to (+191.0) at 9,580 lb. or less
Straight line variation between points given
Moment change due to retracting landing gear -4845 in.-lb.



Empty Wt. C.G. Range

None

*Maximum Weight

Ramp	10,688 lb.
Takeoff	10,600 lb.
Landing	10,600 lb.

No. of Seats

Maximum 15 (including 2 crew seats at +129)
See loading instructions in Pilot's Operating Handbook for an approved seating or cargo configuration. FAA approval for any other configurations must be obtained.

Maximum Baggage

355 lb. (+292) 410 lb. (+325)
Extra equipment installed in or aft of this area may reduce limit to below placarded figure.

Fuel Capacity

115 gal. (+161) (total usable in 2 nacelle tanks, 57 gal. each)
258 gal. (+197) (total usable in 2 wing tanks 130 gal. each)
See NOTE 1(a) for data on system fuel

Oil Capacity

28 qt. total (includes 12 qt. usable in 2 integral tanks at (+131)).
See NOTE 1(b) for data on system oil

Maximum Operating Altitude

31,000 ft.

Control Surface Movements

Wing flaps	Maximum	43°			
Aileron tab	Up	15°	Down	15°	
Aileron	Up	16°	Down	22°	
Elevator	Up	15°	Down	15°	
Horizontal stabilizer	Up	4-1/2° (at leading edge)	Down	4°	
Rudder tab	Right	30°	Left	30°	
Rudder	Right	25°	Left	20°	

Serial Nos. Eligible

B-2 through B-89 and B-93

III - Model A99, Airliner, (Normal Category), Approved February 19, 1971

Engines

2 United Aircraft of Canada, Ltd. PT6A-20 (Turboprop) per Beech Specification BS 20331A.
See NOTE 6

Fuel

JP-4, JP-5 (MIL-T-5624); JP-8 (MIL-T-83133); JET A, JET A-1, and JET B conforming to P&WC S.B. 1244 or ASTM SPEC. D1655.
See NOTE 7 for emergency fuels

Oil (Engine & Gearbox)

UACL PT6 Service Bulletin No. 1 lists approved brand oils.

Engine limits

Static Sea Level Ratings PT6A-20

	Shaft Horsepower	Jet Thrust	Equivalent Shaft Horsepower	Prop Shaft Speed	Maximum Permissible Turbine Interstage Temp (Deg.C.)
Takeoff (5 min.)	550**	72	579	2200*	750
Maximum continuous	550**	72	579	2200*	750
Starting trans. (2 sec.)					1090
Max. reverse (1 min.)	300			2100	750

*See Note 4.
**Available to 70° F. (21.2° C.) static

Oil temperatures: Minus 40° F. Minimum starting
Minus 40° F. to 210°F. Low idle
50° F. to 210° F. Max. continuous

Propeller and Propeller Limits

2 Hartzell HC-B3TN-3 or HC-B3TN-3B hubs with Hartzell T10173E-8 or T10173B-8 blades.
Diameter: 93-3/8 in. (normal); minimum allowable for repair
90-3/8 in. No further reduction permitted
Pitch settings at 30 in. sta.:
Reversing propeller:
Flight idle stop - See NOTE 5
Secondary flight idle stop - See NOTE 5
Reverse - 11°
Feather - 87°

Airspeed Limits (CAS)

Max. operating speed - 260 m.p.h. (226 knots) up to 15,500 ft.
15,500 ft. to 25,000 ft.
Decrease 4 knots per 1,000 ft.
Maneuvering speed - 195 m.p.h. (169 knots)
Flaps extended speed - 161 mph (140 knots)
Landing gear extended - 180 m.p.h. (156 knots)
Landing gear operating - 150 m.p.h. (130 knots) (Retraction)
- 180 m.p.h. (156 knots) (Retraction)

C.G. Range (Landing Gear Extended)

(+179.0) to (+195.0) at 10,650 lb. or less
Moment change due to retracting landing gear -4871 in.-lb.

Empty Wt. C.G. Range

None

*Maximum Weight

Ramp 10,705 lb.
Takeoff 10,650 lb.
Landing 10,650 lb.

Maximum Zero Fuel Weight

9900 lb. (All weight above 9900 lb. must be in fuel weight.)

No. of Seats

Maximum 17 (including 2 crew seats at +126
See loading instructions in Pilot's Operating Handbook for an approved seating or cargo configuration. FAA approval for any other configurations must be obtained.

Maximum Baggage

600 lb. (+ 52)
100 lb. (+378)
800 lb. (+187) in baggage pod when installed.

III - Model A99 (cont'd)

Fuel Capacity: 257 gal. (+181) (total usable in 2 wing tanks, 127 gal. each)
See NOTE 1(a) for data on system fuel

Oil Capacity: 28 qt. total (includes 12 qt. usable in 2 integral tanks at (+131)).
See NOTE 1(b) for data on system oil

Maximum Operating Altitude: 25,000 ft.

For FAR 91 operations:	without oxygen	12,500 ft.
	with crew oxygen only	15,000 ft.
For FAR 135 operations:	As limited by FAR 135.83	

Control Surface Movements

Wing flaps	Maximum	43°		
Aileron tab	Up	15°	Down	15°
Aileron	Up	18°	Down	22°
Elevator	Up	12°	Down	15°
Stabilizer	Up	4-1/4°	Down	3-1/2°
Rudder tab	Right	30°	Left	30°
Rudder	Right	26°	Left	20°

Serial numbers eligible: U-1 through U-145 and U-147

IV - Model A99A, Airliner, (Normal Category), Approved February 19, 1971

Engines: 2 United Aircraft of Canada, Ltd. or Pratt and Whitney PT6A-27 or -28 (Turboprop) per Beech Specification BS 20570B or BS 21404
See NOTE 8

Fuel: JP-4, JP-5 (MIL-T-5624); JP-8 (MIL-T-83133); JET A, JET A-1, and JET B conforming to P&WC S.B. 1244 or ASTM SPEC. D1655.
See NOTE 7 for emergency fuels

Oil (Engine & Gearbox): UACL PT6 Service Bulletin No. 1 lists approved brand oils.

Engine limits

	Static Sea Level Ratings PT6A-27 or -28				
	Shaft Horsepower	Jet Thrust	Equivalent Shaft Horsepower	Prop Shaft Speed	Maximum Permissible Turbine Interstage Temp (Deg.C.)
Takeoff (5 min.)	680**	76	715	2200*	725
Maximum continuous	680**	76	715	2200*	725
Starting trans. (2 sec.)					1090
Max. reverse (1 min.)	300			2100	725

*See Note 4.
**Available to 70° F. (21.2° C.) static

Oil temperatures:	Minus 40° F.	Minimum starting
	Minus 40° F. to 210°F.	Low idle
	50° F. to 210° F.	Max. continuous

Propeller and Propeller Limits: 2 Hartzell HC-B3TN-3 or HC-B3TN-3B hubs with Hartzell T10173E-8 or T10173B-8 blades.
Diameter: 93-3/8 in. (normal); minimum allowable for repair
90-3/8 in. No further reduction permitted
Pitch settings at 30 in. sta.:
Reversing propeller:
Flight idle stop - See NOTE 5
Secondary flight idle stop - See NOTE 5
Reverse - 11°
Feather - 87°

IV - Model A99A (cont'd)

Airspeed Limits (CAS)	Max. operating speed	- 260 m.p.h. (226 knots) up to 15,500 ft. 15,500 ft. to 25,000 ft. Decrease 4 knots per 1,000 ft.
	Maneuvering speed	- 195 m.p.h. (169 knots)
	Flaps extended speed	- 161 mph (140 knots)
	Landing gear extended	- 180 m.p.h. (156 knots)
	Landing gear operating	- 150 m.p.h. (130 knots) (Retraction) - 180 m.p.h. (156 knots) (Retraction)
C.G. Range (Landing Gear Extended)	(+179.0) to (+195.0) at 10,900 lbs. or less Moment change due to retracting landing gear -4871 in.-lb.	
Empty Wt. C.G. Range	None	
*Maximum Weight	Ramp 10,955 lb. Takeoff 10,900 lb. Landing 10,900 lb.	
Maximum Zero Fuel Weight	9900 lb. (All weight above 9900 lb. Must be in fuel weight.)	
No. of Seats	Maximum 17 (including 2 crew seats at +126 See loading instructions in Pilot's Operating Handbook for an approved seating or cargo configuration. FAA approval for any other configurations must be obtained.	
Maximum Baggage	600 lb. (+ 52) 100 lb. (+378) 800 lb. (+187) in baggage pod when installed.	
Fuel Capacity	257 gal. (+181) (total usable in 2 wing tanks 127 gal. each) See NOTE 1(a) for data on system fuel	
Oil Capacity	28 qt. total (includes 12 qt. usable in 2 integral tanks at (+131)). See NOTE 1(b) for data on system oil	
Maximum Operating Altitude	25,000 ft. For FAR 91 operations: without oxygen 12,500 ft. with crew oxygen only 15,000 ft. For FAR 135 operations: As limited by FAR 135.83	

Control Surface Movements					
Wing flaps	Maximum	43°			
Aileron tab	Up	15°	Down	15°	
Aileron	Up	18°	Down	20°	
Elevator	Up	12°	Down	15°	
Stabilizer	Up	4-1/4°	Down	3-1/2°	
Rudder tab	Right	30°	Left	30°	
Rudder	Right	26°	Left	20°	

Serial numbers eligible: U-1 through U-145 and U-147

V - Model A100, King Air, (Military U-21F) (Normal Category), Approved May 7, 1971

Engines	2 United Aircraft of Canada, Ltd. or Pratt and Whitney PT6A-28 (Turboprop) per Beech Specification BS 21404 or; 2 United Aircraft of Canada, Ltd. or Pratt and Whitney PT6A-34 (Turboprop) per Pratt and Whitney Specification No. 735.
Fuel	JP-4, JP-5 (MIL-T-5624); JP-8 (MIL-T-83133); JET A, JET A-1, and JET B conforming to P&WC S.B. 1244 or ASTM SPEC. D1655. See NOTE 7 for emergency fuels
Oil (Engine & Gearbox)	Pratt & Whitney Canada Service Bulletin No. 1001 lists approved oils.

V - Model A100 (cont'd)

Engine limits

	Static Sea Level Ratings PT6A-28				
	Shaft Horsepower	Jet Thrust	Equivalent Shaft Horsepower	Prop Shaft Speed	Maximum Permissible Turbine Interstage Temp (Deg.C.)
Takeoff (5 min.)	680**	90	715	2200*	750
Maximum continuous	680**	90	715	2200*	750
Starting trans. (2 sec.)					1090
Max. reverse (1 min.)	300			2100	750

*See Note 4.
**Available to 70° F. (21.2° C.) static

At low altitude and low ambient temperature the engines may produce more power at takeoff than that for which the airplane has been certificated. Under these conditions the placarded torquemeter limitations shall not be exceeded.

Engine limits

	Static Sea Level Ratings PT6A-34				
	Shaft Horsepower	Jet Thrust	Equivalent Shaft Horsepower	Prop Shaft Speed	Maximum Permissible Turbine Interstage Temp (Deg.C.)
Takeoff (5 min.)	680**	87	715	2200*	790
Maximum continuous	680**	87	715	2200*	790
Starting trans. (2 sec.)					1090
Max. reverse (1 min.)	300			2100	790

*See Note 4.
**Available to 87° F. (30° C.) static
At low altitude and low ambient temperature the engines may produce more power at takeoff than that for which the airplane has been certificated. Under these conditions the placarded torquemeter limitations shall not be exceeded.

Oil temperatures:	Minus 40° F.	Minimum starting
	Minus 40° F. to 210°F.	Low idle
	50° F. to 210° F.	Max. continuous not to exceed 5 min.

Propeller and Propeller Limits

2 Hartzell HC-B4TN-3 or HC-B4TN-3A hubs with Hartzell T10173-12 ½, T10173FB-12.5 or T10173FNB-12.5 blades.
Diameter: 90 in. (normal)
No further reduction permitted
Pitch settings at 30 in. sta.:
Reversing propeller:
Flight idle stop - See NOTE 5
Secondary flight idle stop - See NOTE 5
Reverse - 11°
Feather - 86.5°

Airspeed Limits (CAS)

Max. operating speed	- 260 m.p.h. (226 knots) up to 15,500 ft. Decrease 4 knots per 1,000 ft. above 15,500 ft.
Maneuvering speed	- 195 m.p.h. (169 knots)
Maximum flap extension speed	
Approach position 13°	- 210 mph (182 knots)
Full down position 43°	- 161 mph (140 knots)
Landing gear extended	- 180 m.p.h. (156 knots)
Landing gear operating	- 180 m.p.h. (156 knots) (Extension)
	- 150 m.p.h. (130 knots) (Retraction) (S/N B-1, B-90 through B-92, B-94 through B-151)
OR	168 m.p.h. (146 knots) (Retraction) (S/N B-152 and after)

C.G. Range (Landing Gear Extended)

(+184.5) to (+191.0) at 11,500 lb.
(+177.0) to (+191.0) at 9,580 lb. or less
Straight line variation between points given.
Moment change due to retracting landing gear -4845 in.-lb.

V - Model A100 (cont'd)

Empty Wt. C.G. Range	None				
*Maximum Weight	Ramp	11,568 lb.			
	Takeoff	11,500 lb.			
	Landing	11,210 lb.			
	Maximum zero fuel	9,600 lb.			
No. of Seats	Maximum 15 (including 2 crew seats at +129) See loading instructions in Pilot's Operating Handbook for an approved seating or cargo configuration. FAA approval for any other configurations must be obtained.				
Maximum Baggage	355 lb. (+292) 410 lb. (+325) Extra equipment installed in or aft of this area may reduce limit to below placarded figure.				
Fuel Capacity	82 gal. (+204) (2 auxiliary tanks 41 gal. ea.); 388 gal. (+183) (2 main tanks interconnected 194 gal. each) See NOTE 1(a) for data on system fuel.				
Oil Capacity	28 qt. total (includes 12 qt. usable in 2 integral tanks at (+131)). See NOTE 1(b) for data on system oil.				
Maximum Operating Altitude	31,000 ft.				
Control Surface Movements	Wing flaps	Maximum	43°		
	Aileron tab	Up	15°	Down	15°
	Aileron	Up	16°	Down	22°
	Elevator	Up	15°	Down	15°
	Stabilizer	Up	4-1/4°	Down	4° (at leading edge)
	Rudder tab	Right	30°	Left	30°
	Rudder	Right	25°	Left	20°
Serial numbers eligible	B-1, B-90 through B-92, B-94 and up. Prior to Civil Certification, Model A100 (U-21F) airplanes, S/N B-95 through B-99 must be modified per Beech Drawing 100-005002.				

VI - Model B99, Airliner, (Normal Category), Approved March 27, 1972

Engines	2 United Aircraft of Canada, Ltd. or Pratt and Whitney PT6A-27 or -28 (Turboprop) per Beech Specification BS 20570B, or BS 21404. See NOTE 8
Fuel	JP-4, JP-5 (MIL-T-5624); JP-8 (MIL-T-83133); JET A, JET A-1, and JET B conforming to P&WC S.B. 1244 or ASTM SPEC. D1655. See NOTE 7 for emergency fuels
Oil (Engine & Gearbox)	UACL PT6 Engine Service Bulletin No. 1 lists approved brand oils.

Engine limits

	Static Sea Level Ratings PT6A-27 or -28				
	Shaft Horsepower	Jet Thrust	Equivalent Shaft Horsepower	Prop Shaft Speed	Maximum Permissible Turbine Interstage Temp (Deg.C.)
Takeoff (5 min.)	680**	76	715	2200*	725
Maximum continuous	680**	76	715	2200*	725
Starting trans. (2 sec.)					1090
Max. reverse (1 min.)	300			2100	725

*See Note 4.
**Available to 70° F. (21° C.) static

Oil temperatures:	Minus 40° F.	Minimum starting
	Minus 40° F. to 210°F.	Low idle
	50° F. to 210° F.	Max. continuous

VI - Model B99 (cont'd)

Propeller and Propeller Limits

2 Hartzell HC-B3TN-3 or HC-B3TN-3B hubs with Hartzell T10173E-8 blades.
Diameter: 93-3/8 in. (normal); minimum allowable for repair 90-3/8 in.
No further reduction permitted
Pitch settings at 30 in. sta.:
Reversing propeller:
Flight idle stop - See NOTE 5
Secondary flight idle stop - See NOTE 5
Reverse - 11°
Feather - 87°

Airspeed Limits (CAS)

Max. operating speed	- 260 m.p.h. (226 knots) up to 15,500 ft. 15,500 ft. to 25,000 ft. Decrease 4 knots per 1,000 ft.
Maneuvering speed	- 195 m.p.h. (169 knots)
Flaps extended speed	
Full (100 percent)	- 161 mph (140 knots)
Approach and takeoff	(30 percent) - 209 mph (182 knots)
Landing gear extended	- 180 m.p.h. (156 knots)
Landing gear operating	- 150 m.p.h. (130 knots) (Retraction) - 180 m.p.h. (156 knots) (Retraction)

C.G. Range (Landing Gear Extended)

(+179.0) to (+195.0) at 10,900 lbs. or less
Moment change due to retracting landing gear -4871 in.-lb.

Empty Wt. C.G. Range

None

***Maximum Weight**

Ramp	10,955 lb.
Takeoff	10,900 lb.
Landing	10,900 lb.

No. of Seats

Maximum 17 (including 2 crew seats at +126
See loading instructions in Pilot's Operating Handbook for an approved seating or cargo configuration. FAA approval for any other configurations must be obtained.

Maximum Baggage

600 lb. (+ 52)
100 lb. (+378)
800 lb. (+187) in baggage pod when installed.

Fuel Capacity

115 gal. (+160) (Total usable in 2 nacelle tanks, 56 gal. each)
258 gal. (+196) (Total usable in 2 wing tanks 128 gal. each)
See NOTE 1(a) for data on system fuel

Oil Capacity

28 qt. total (includes 12 qt. usable in 2 integral tanks at (+131)).
See NOTE 1(b) for data on system oil

Maximum Operating Altitude

25,000 ft.
For FAR 91 operations: without oxygen 12,500 ft.
with crew oxygen only 15,000 ft.
For FAR 135 operations: As limited by FAR 135.83

Control Surface Movements

Wing flaps	Maximum	43°			
Aileron tab	Up	15°	Down	15°	
Aileron	Up	18°	Down	20°	
Elevator	Up	12°	Down	15°	
Horizontal Stabilizer	Up	4-1/4°	Down	3-1/2°	
Rudder tab	Right	30°	Left	30°	
Rudder	Right	26°	Left	20°	

Serial numbers eligible

U-146, U-148 through U-164

VII - Model A100A, King Air, (Normal Category), Approved November 1, 1972

Engines

2 United Aircraft of Canada, Ltd. PT6A-28A (Turboprop)
per Beech Specification BS 21404

Fuel

JP-4, JP-5 (MIL-T-5624); JP-8 (MIL-T-83133); JET A, JET A-1, and JET B conforming to P&WC S.B. 1244 or ASTM SPEC. D1655.
See NOTE 7 for emergency fuels

Oil (Engine & Gearbox)

UACL PT6 Service Bulletin No. 1 lists approved brand oils.

Engine limits

	Static Sea Level Ratings				
	Shaft Horsepower	Jet Thrust	Equivalent Shaft Horsepower	Prop Shaft Speed	Maximum Permissible Turbine Interstage Temp (Deg.C.)
Takeoff (5 min.)	700**	90	736	2200*	750
Maximum continuous	700**	90	736	2200*	750
Starting trans. (2 sec.)					1090
Max. reverse (1 min.)	300			2100	750

*See Note 4.
**Available to 70° F. (21° C.) static

At low altitude and low ambient temperature the engines may produce more power at takeoff than that for which the airplane has been certificated. Under those conditions the placarded torquemeter limitations shall not be exceeded.

Oil temperatures:	
Minus 40° F.	Minimum starting
Minus 40° F. to 210°F.	Low idle
50° F. to 210° F.	Max. continuous
	Not to exceed 5 minutes

Propeller and Propeller Limits

2 Hartzell HC-B4TN-3 hubs with Hartzell T10173FB-12 1/2 blades
Diameter: 90 in. (normal)
No further reduction permitted
Pitch settings at 30 in. sta.:
Flight idle stop - See NOTE 5
Secondary flight idle stop - See NOTE 5
Reverse - 11°
Feather - 86.5°

Airspeed Limits (CAS)

Max. operating speed	- 260 m.p.h. (226 knots) up to 15,500 ft. Decrease 4 knots per 1,000 ft. above 15,500 ft.
Maneuvering speed	- 195 m.p.h. (169 knots)
Max. flaps extension speed	
Approach position 13°	- 210 m.p.h. (182 knots)
Full down position 43°	- 161 m.p.h. (140 knots)
Landing gear extended	- 180 m.p.h. (156 knots)
Landing gear operating	- 180 m.p.h. (156 knots) (Extension) - 168 m.p.h. (146 knots) (Retraction)

C.G. Range (Landing Gear Extended)

(+185.7) to (+191.0) at 11,800 lb. or less
(+177.0) to (+191.0) at 9,580 lb. or less
Straight line variation between points given
Moment change due to retracting landing gear -4845 in.-lb.

Empty Wt. C.G. Range

None

Maximum Weight

Ramp	11,868 lb.
Takeoff	11,800 lb.
Landing	11,210 lb.
Maximum zero fuel	9,600 lb.

No. of Seats

Maximum 15 (including 2 crew seats at +129)
See loading instructions in Pilot's Operating Handbook for an approved seating or cargo configuration. FAA approval for any other configurations must be obtained.

VII - Model A100A (cont'd)

Maximum Baggage

355 lb. (+292)
410 lb. (+325)
Extra equipment installed in or aft of this area may reduce limit to below placarded figure.

Fuel Capacity

82 gal. (+204) (2 auxiliary tanks 41 gal. each)
388 gal. (+183) (2 main tanks interconnected 194 gal. each)
See NOTE 1(a) for data on system fuel.

Oil Capacity

28 qt. total (includes 12 qt. usable in 2 integral tanks at (+131)).
See NOTE 1(b) for data on system oil

Maximum Operating Altitude

31,000 ft.

Control Surface Movements

Wing flaps	Maximum	43°			
Aileron tab	Up	15°	Down	15°	
Aileron	Up	16°	Down	22°	
Elevator	Up	15°	Down	15°	
Horizontal stabilizer	Up	4-1/4° (at leading edge)	Down	4°	
Rudder tab	Right	30°	Left	30°	
Rudder	Right	25°	Left	20°	

Serial Nos. Eligible

BC-1 and after

VIII - Model A100C, King Air, (Normal Category), Approved December 14, 1973

(This section was removed from the TCDS at Revision 27 since no airplanes have been built, nor are any planned to be made.)

IX - Model B100, King Air, (Normal Category), Approved December 1, 1975

Engines

2 AiResearch TPE 331-6-252B (Turboprop) per Beech Specification 22558

Fuel

Aviation turbine fuels ASTM Designation D1655-68, Types Jet A, Jet B, & Jet A-1; MIL-F-5616-1, Grade JP-1; and MIL-T-5624G-1, Grades JP-4 and JP-5; and MIL-F-46005A(MR)-1, Types I and II. Fuels shall conform to the specifications as listed or to subsequent revisions thereto.
See NOTE 7 for use of emergency fuel

Oil

MIL-23699B and MIL-L-7808G (Oils shall conform to the specifications as listed or to the subsequent revisions thereto.)

Engine limits

	Static Sea Level Ratings				
	Shaft Horsepower	Jet Thrust	Equivalent Shaft Horsepower	Prop Shaft Speed	Maximum Permissible Turbine Interstage Temp (Deg.C.)
Takeoff (5 min.)	715	153	776	2000	923
Maximum continuous	715	153	776	2000	923
Starting trans. (2 sec.)					1149
Max. reverse (1 min.)				2000	

At low altitude and low ambient temperature the engines may produce more power at takeoff than that for which the airplane has been certificated. Under those conditions the placarded torquemeter limitations shall not be exceeded.

Oil temperatures:	Minus 40° C. to 110° C.	Normal operations
	Minus 40° C. to 110° C.	Ground idle
	Minus 40° C. to 110° C.	Takeoff or climb power for 5 minute maximum

IX - Model B100 (cont'd)

Propeller and Propeller Limits

(For Aircraft S/N BE-1 through BE-113):
2 Hartzell HC-B4TN-5C or HC-B4TN-5F hubs with Hartzell T10173FB-12.5 or T10173FNB-12.5 aluminum alloy blades and Hartzell D3434-4P or D3434-10P spinner assembly.

(For Aircraft S/N BE-114 and after):
2 Hartzell HC-B4TN-5C or HC-B4TN-5F hubs with Hartzell T10173FK-12.5 or T10173FNK-12.5 aluminum alloy blades and Hartzell D3434-4P spinner assembly.

Diameter: 90 in. (normal); no further reduction permitted.
Pitch settings at 30 in. sta.:

Feathered	-	+87°
Reverse pitch stop	-	-10°
Start locks	-	+ 2.5°
Flight idle	-	+ 8.5°

Airspeed Limits (CAS)

Max. operating speed	256 m.p.h. (223 knots) Decrease 4 knots per 1,000 ft. above 15,500 ft.
Max. design maneuver	192 m.p.h. (167 knots)
Max. flaps extended (30 percent approach)	206 m.p.h. (179 knots)
Max. flap extended (100 percent full down)	176 m.p.h.) (153 knots)
Landing gear extended	176 m.p.h. (153 knots)
Landing gear operating	176 m.p.h. (153 knots)

C.G. Range (Landing Gear Extended)

(+181.75) to (+191.0) at 11,800 lb.
(+175.0) to (+191.0) at 9,100 lb. or less
Straight line variation between points given
Moment change due to retracting landing gear -4845 in.-lb.

Empty Wt. C.G. Range

None

Maximum Weight

Ramp	11,875 lb.
Takeoff	11,800 lb.
Landing	11,210 lb.
Maximum zero fuel	9,600 lb.

No. of Seats

Maximum 15 (including 2 crew seats at +129)
See loading instructions in Pilot's Operating Handbook for an approved seating or cargo configuration. FAA approval for any other configurations must be obtained.

Maximum Baggage

150 lb. (+292)
410 lb. (+325)

Fuel Capacity

Tank	Cap. (Gal.)	Usable (Gal.)	Arm
L & R Main	194+	194 each	(+183.0)
L & R Aux.	41+	41 each	(+204.0)

See Note 1(d) on System Fuel.

Oil Capacity

21 qt. total (includes 8 qt. usable in 2 integral tanks at (+207)).
See NOTE 1(c) for data on system oil.

Maximum Operating Altitude

31,000 ft.

Control Surface Movements

Wing flaps	Maximum	43°			
Aileron tab	Up	15°	Down	15°	
Aileron	Up	16°	Down	22°	
Elevator	Up	15°	Down	15°	(at leading edge)
Horizontal stabilizer	Up	4-1/4°	Down	4°	
Rudder tab	Right	30°	Left	30°	
Rudder	Right	25°	Left	20°	

Serial Nos. Eligible

BE-1 and up

X - Model C99, Airliner, (Normal Category), Approved July 27, 1981

Engines: 2 United Aircraft of Canada, Ltd. or Pratt and Whitney PT6A-36 (Turboprop) per Beech Specification 23365

Fuel: JP-4, JP-5 (MIL-T-5624); JP-8 (MIL-T-83133); JET A, JET A-1, and JET B conforming to P&WC S.B. 1244 or ASTM SPEC. D1655. See NOTE 7 for emergency fuels

Oil (Engine & Gearbox): UACL PT6 Engine Service Bulletin No. 1 lists approved brand oils

Engine limits***

	Static Sea Level Ratings PT6A-36				
	Shaft Horsepower	Jet Thrust	Equivalent Shaft Horsepower	Prop Shaft Speed	Maximum Permissible Turbine Interstage Temp (Deg.C.)
Takeoff (5 min.)	715**	85	749	2200*	805
Maximum continuous	715**	85	749	2200*	805
Starting trans. (2 sec.)					1090
Max. reverse (1 min.)	300			2100	805

*See Note 4.
**Available to 103° F. (39° C.) static

Oil temperatures:		
	Minus 40° F.	Minimum starting
	Minus 40° F. to 210°F.	Low idle
	50° F. to 210° F.	Max. continuous
	210° F. to 220°F.	10 min.

Propeller and Propeller Limits: 1 or 2 Hartzell HC-B3TN-3B and/or 1 or 2 HC-B3TN-3M hubs with Hartzell T10173K-8 blades. See NOTE 10.
Diameter: 93-3/8 in. (normal); minimum allowable for repair 90-3/8 in.
No further reduction permitted
Pitch settings at 30-n sta.:
Reversing propeller:
Flight Idle Stop - See portion of NOTE 5
Reverse - 11°
Feather - 87°

Airspeed Limits (CAS)

Max. operating speed	258 m.p.h. (224 knots) up to 15,500 ft. 15,500 ft. to 25,000 ft. decrease 4 knots per 1,000 ft.
Maneuvering speed	190 m.p.h. (166 knots)
Flaps extended speeds	
Full (100 percent0	161 m.p.h. (140 knots)
Approach and takeoff (30 percent)	205 m.p.h. (178 knots)
Landing gear extended	175 m.p.h. (152 knots)
Landing gear operating	175 m.p.h. (152 knots) (Extension) 175 m.p.h. (152 knots) (Retraction)

C.G. Range (Landing Gear Extended): (+182.5) to (+195.0) at 11,300 lbs. or less
(+179.0) to (+195.0) at 10,900 lbs. or less
Straight line variation between points given
Moment change due to retracting landing gear -4871 in.-lb.

Empty Wt. C.G. Range: None

Maximum Weight

Ramp	11,380 lb.
Takeoff	11,300 lb.
Landing	11,300 lb.

No. of Seats: Maximum 17 (including 2 crew seats at +129)
See loading instructions in Pilot's Operating Handbook for an approved seating or cargo configuration. FAA approval for any other configurations must be obtained.

Maximum Baggage: 600 lb. (+ 52)
100 lb. (+378)
800 lb. (+187) in baggage pod when installed

X - Model C99 (cont'd)

Fuel Capacity: 115 gal. (+160) (Total usable in 2 nacelle tanks, 56 gal. each)
258 gal. (+196) (Total usable in 2 wing tanks, 128 gal. each)
See NOTE 1(a) for data on system fuel

Oil Capacity: 28 qt. (total oil capacity) (includes 12 qt. usable in 2 integral tanks at (+131)).
See NOTE 1(b) for data on system oil.

Maximum Operating Altitude: 25,000 ft.

Control Surface Movements:

Wing flaps	Maximum	43°			
Aileron tab	Up	15°	Down	15°	
Aileron	Up	18°	Down	20°	
Elevator	Up	12°	Down	15°	
Horizontal stabilizer	Up	4-1/4°	Down	3-1/2°	
Rudder tab	Right	30°	Left	30°	
Rudder	Right	26°	Left	20°	

Serial Nos. Eligible: U-50, U-165 and up

Data Pertinent to All Models

Datum: Located +190 in. forward of wing main (forward spar centerline).

Leveling Means: Two external screws on left side of fuselage forward of entrance door.

Certification basis

	99, 99A, A99, A99A	B99	C99	100	A100	A100A	B100
Part 23 of the Federal Aviation Regulations dated Feb 1, 1965, as amended by 23-1, 23-2, and 23-3	X	X	X	X	X	X	X
and Par. 23.954 or Am. 23-7					X	X	X
and Par. 23.959 of Am. 23-7		X	X			X	X
and Par. 23.1385(c), 23.1387(a) and 23.1387(e) of Am. 23-12	X	X	X	X	X	X	X
and Par. 23.729 of Am. 23-21	X	X	X				
and Par. 23.967(a)(5) of Am. 23-18			X				
and Par. 23.1545(a) of Am. 23-23 and 23.1583(a) of Am. 23-7			X				
and Par. 23.1419 of Am. 23-14							X
Par. 25.777 of FAR 25 in effect on April 4, 1969				X	X	X	
Part 36 of the Federal Aviation Regulations dated Dec 1, 1969, as amended through 36-10			X				X
SFAR 27 effective February 1, 1974			X				X
Equivalent Safety findings:							
FAR 23.621	X	X	X	X	X	X	X
FAR 23.729(e)							X
FAR 23.967(a)(5)					X	X	X
FAR 23.1323, 23.1545, 23.1583(a)							X
Approved for flight into known icing conditions when equipped per AFM	X	X	X	X	X	X	X
Special conditions as outlined in FAA letters to Beech dated April 24, 1968 (FAR 135) and July 17, 1969 (FAR 91)	X	X	X				
Special conditions as outlined in FAA letter to Beech dated July 19, 1969, and November 6, 1969 (FAR 91 operation only)				X	X	X	X
Special conditions 23-98-CE-13 issued July 24, 1980	X	X	X	X	X	X	X
Special condition A-11, "De-icers FAR 23.1419" for Models 99, 99A, A99, A99A, 99A (FACH), B99 and C99 is equivalent to Sec. 34 "Ice Protection" of SFAR 23 dated January 7, 1969, and Para. 23.1419 of Amendment 23-14.							

Application for type certificate dated July 8, 1966
Type Certificate No. A14CE issued May 2, 1968, obtained by the manufacturer under delegation option procedures.

Production Basis

Production Certificate No. 8. Delegation Option Manufacturer No. CE-2 authorized to issue airworthiness certificates under delegation option provisions of Part 21 of the Federal Aviation Regulations.

Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification.

In addition, the following equipment is required:

1. Pre-stall warning indicator, Safe Flight Instrument Corp.
   Models 99, 99A, A99, A99A (not equipped for operation in icing conditons)
   P/N 793-1/795-1/795-6

   Models 99, 99A, A99, A99A (equipped for operation in icing conditions)
   P/N 795-1/795-6

Model B99	P/N 795-6/795-1
Model 100	P/N 795-1/795-6
Models A100 (U-21F) and A100A	P/N 796-5/795-9
Model B100	P/N 795-13
Model C99	P/N 795-6

2. Maximum allowable airspeed indicator
   P/N 100-384043-1 - pilot's side (Model 100)
   P/N 100-384043-5 - pilot's side (Model A100)
   P/N 100-384043-13 - pilot's side (Model A100A)
   P/N 100-384043-15 - pilot's side (Model B100)

NOTE 1. Current weight and balance report including list of equipment included in basic empty weight, and loading instructions when necessary must be provided for each aircraft at the time of original certification.

a. The basic empty weight and corresponding center of gravity must include unusable fuel of 18 lb. at (+165) for the A99, A99A, 20 lb. at (+169) for the 99, 99A and 100, 28 lb. at (+173) for the A100 and A100A, and 35 lb. at (+163) for the B99 and C99.

b. The basic empty weight and corresponding center of gravity must include oil of 56 lb. at (+131) for the 99, 99A, A99, A99A, B99, C99, 100, A100, and A100A.

c. The basic empty weight and corresponding center of gravity must include oil of 42 lb. at (+107) for the B100.

d. The basic empty weight and corresponding center of gravity must include unusable fuel of 40 lb. at (+171) for the B100.

NOTE 2. All placards required in the approved Airplane Flight Manual must be installed in the appropriate location.

NOTE 3. Mandatory retirement time for all fuselage structural components for Models 100, A100 (U-21F), A100A and B100 is 20,000 hours time in service. However, the Fuselage Life may be unlimited if the airplane is maintained and inspected at the required intervals specified in Chapter 5 (or Chapter 4 or Airworthiness Limitations Section, as appropriate) of the Airplane's Maintenance Manual.

Mandatory retirement time for Models 99, 99A, A99A and B99 wing center section lower forward spar cap and both right and left outer panel lower forward spar caps including wing attachment fittings is as specified in the applicable Airworthiness Directive, or for airplanes having complied with Beechcraft Service Instruction 0986, the FAA Approved Airplane Flight Manual. Mandatory retirement times for all Model C99 structural components are contained in the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual (P/N 99-590030-3) Limitations Section. These limitations may not be changed without FAA Engineering approval.

Mandatory replacement time for the model 100, A100 and B100; serials B-1 after, BE-1 and after for all wing attach bolts and nuts is 15 yrs or 15, 000 hours, whichever occurs first; subsequent replacement times are the same as initial intervals as noted.

NOTE 4. The maximum propeller shaft overspeed limit for Models 99, 99A, 99A(FACH), A99, B99, and C99 is 110 percent of all ratings and may be employed for sustained periods in emergencies. 100 percent propeller shaft speed is defined as 2200 r.p.m. and is the normal steady state operating limit. Gas generator speeds up to 102.7 percent are permissible for 10 seconds and to 101.6 percent for unlimited periods subject to applicable temperature and other limits. 100 percent gas generator speed is defined as 37,500 r.p.m.

The maximum propeller shaft overspeed limit for Model 100, A100, and A100A is 110 percent of all ratings and may be employed for sustained periods in emergencies. 100 percent propeller shaft speed is defined as 2200 r.p.m. and is the normal steady state operating limit. Gas generator speeds up to 102.6 percent are

permissible for 10 seconds and to 101.5 percent for unlimited periods subject to applicable temperature and other limits. 100 percent gas generator speed is defined as 37,500 r.p.m.

For Model B100 only. The maximum allowable propeller shaft speeds are 2100 r.p.m. (105%) for a transient period not to exceed 5 seconds and 2020 r.p.m. (101%) for 5 minutes. Normal propeller shaft speed is 2000 r.p.m. (100%). 100 percent turbine speed is defined as 41,730 r.p.m.

NOTE 5. Flight idle propeller low pitch stop is set so that at 2000 r.p.m., torque shall be an indicated 600 ±60 ft.-lb. corrected for sea level standard day. Secondary flight idle stop shall be 210 ±40 propeller r.p.m. higher than flight idle stop with a gas generator speed of 70 percent. (Models 99, 99A, 100, 99A(FACH), A99, A99A and B99).

Flight idle propeller low pitch stop is set so that at 2000 r.p.m. torque shall be an indicated 600 ±40 ft.-lb. corrected for sea level standard day (Model C99).

Flight propeller low pitch stop is set so that at 2000 r.p.m. torque shall be an indicated 660 ±60 ft.-lb. corrected for sea level standard day. (Secondary flight) and ground low pitch stop shall set so that at 2000 r.p.m. torque shall be an indicated 440 ±60 ft.-lb. corrected for sea level standard day. (Models A100 and A100A).

NOTE 6. Prior to civil certification, Model 99A(FACH) airplanes, S/N U-137 through U-145, which have been operated by the Chilean Air Force, must be modified per Beech Dwg. 99-002010.

Model 99, S/N U-36, U-80 through U-145 and U-147 are eligible for installation of PT6A-27 engines at the Beech factory and when so modified must be identified as Model 99A.

Model 99A airplanes may be modified to the A99A configuration by field or factory incorporation of Beech Kit 99-5008-1.

Model 99 airplanes may be modified to the A99 configuration by field or factory incorporation of Beech Kit 99-5008.

NOTE 7. Emergency use of MIL-G-5572 fuel (Models 99, 99A, A99, A99A, B99, C99, 100, A100, A100A):

Grades 80/87, 91/98, 100/130 and 115/145 are permitted for a total time period not to exceed 150 hours during any overhaul period. It is not necessary to purge the unused fuel from the system when switching fuel types.

Emergency use of MIL-G-5572D fuel (Model B100):

Use of MIL-G-5572D, 80/87 only, aviation gasoline permitted not to exceed 1,000 gallons per engine for each 100 hours of engine operation. Log book entry required. Icing inhibitor MIL-I-2768E fuel additive approved not to exceed 0.15 percent by volume.

NOTE 8. PT6A-27 and -28 engines may be intermixed on the 99, 99A, B99, and A99A. PT6A-28 engine should be modified with the -27 rear scavenge oil tee and hose.

NOTE 9. Model 99 and 99A aircraft may increase their gross weight to 10,900 pounds and increase their performance limitations in accordance with FAA Approved Flight Manual 99-590019-13 when modified per Beech Kits 99-5014-1 or 95-5014-3. When modified, the limitations in Section VI of the TCDS appropriate to the Model B99 will apply.

NOTE 10. The two (2) propeller models used on the Model C99 differ only in the manner in which the feather angle is adjusted. The HC-B3TN-3B propeller has an internal feather adjustment and must be partially disassembled to reset the feather angle. The HC-B3TN-3M hub has an external adjustment feature and need not be disassembled to reset the feather angle.

Contact Raytheon Aircraft Company as necessary to obtain availability information concerning the drawings and kits which are referenced by this publication.

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